UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,573	10/13/2004	Gunnar Klinghult	55574-00006USPX	4509

23932 7590 10/31/2006

JENKENS & GILCHRIST, PC
1445 ROSS AVENUE
SUITE 3200
DALLAS, TX 75202

EXAMINER	
LUI, DONNA V	

ART UNIT	PAPER NUMBER
2629	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/511,573	KLINGHULT, GUNNAR	
	Examiner	Art Unit	
	Donna V. Lui	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 October 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/13/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 5, 8, 9, 13-15, and 17** are rejected under 35 U.S.C. 102(b) as being anticipated by Rapaich (WO 00/20959).

With respect to **Claim 9**, Rapaich teaches an input device comprising: a pointing device *(See figure 2, element 50; page 5, lines 1-4)*; an activity sensor *(page 5, lines 7-9, elements 54 and 56: directional sensors ~ activity sensor)* for sensing activation of the pointing device; wherein the activity sensor comprises a threshold comparator *(See figure 4, element 96; page 6, lines 12-14 and lines 18-20)*; and wherein the activity sensor is adapted to enable energization of the pointing device when the sensed activation of the pointing device exceeds a threshold *(page 6, lines 23-24; note that the threshold is equivalent to a signal resulting from the change is capacitance)*.

With respect to **Claim 1**, claim 1 differs from claim 9 only in that claim 9 is an input device whereas claim 1 is a means plus function claim. Thus, the means plus function claim of claim 1 is analyzed as previously discussed with respect to the input device of claim 9.

With respect to **Claim 13**, the device according to claim 9, Rapaich teaches the activity sensor further comprises a detector device for sensing a capacitance change in the pointing device *(page 6, lines 23-24)*.

With respect to **Claim 14**, the device according to claim 13, Rapaich teaches the pointing device comprises a ball capacitively connected to the detector device *(page 5, lines 7-9; element 52: ball transducer ~ ball)*.

With respect to **Claim 15**, the device according to claim 14, Rapaich teaches the ball is a metallized plastic ball with a plastic or rubber coating *(page 6, lines 7-11; elements 52 and 59 ~ metallized plastic ball where the chassis is the plastic coating)*.

With respect to **Claim 17**, the device according to claim 13, Rapaich teaches the detector device comprises a high impedance amplifier *(page 6, lines 16-18; element 90: CMOS amplifier ~ high impedance amplifier)*.

With respect to **Claims 5 and 8**, claims 5 and 8 differ from claims 13 and 17 respectively only in that claims 13 and 17 relate to an input device whereas claims 5 and 8 are means plus

function claims. Thus, the means plus function claims of claims 5 and 8 are analyzed as previously discussed with respect to the input devices of claims 13 and 17.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 2-3, 6-7, 10-11 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rapaich as applied to claim 9 above, and further in view of Ryan et al. (GB 2 279 750 A).

With respect to **Claim 10**, the device according to claim 9, Rapaich does not teach the threshold is adjustable.

Ryan teaches a sensing device *(See figure 1)* having an adjustable threshold *(page 9, second paragraph)*.

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to have a threshold that is adjustable, as taught by Ryan, to the device of Rapaich, so as to allow for a variable range of sensitivities where in some cases either a shorter or a long response time is needed.

With respect to **Claim 11**, the device according to claim 9, Rapaich does not teach the activity sensor comprises a timer adapted to switch off the energization of the pointing device after a time has elapsed without any sensed activation of the pointing device.

Ryan teaches a sensing device *(See figure 1)* where the activity sensor comprises a timer adapted to switch off the energization of the pointing device after a time has elapsed without any sensed activation of the pointing device *(pages 7-8, bridging paragraph)*.

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to have an activity sensor comprising a timer adapted to switch off the energization of the pointing device after a time has elapsed without any sensed activation of the pointing device, as taught by Ryan, to the device of Rapaich, so as to reduce power consumption.

With respect to **Claim 16**, the device according to claim 14, Rapaich does not teach the detector device comprises an oscillator with a resonant circuit, wherein a capacitance of the ball forms a part of the resonant circuit.

Ryan teaches a sensing device *(See figure 1)* where the detector device comprises an oscillator with a resonant circuit *(See figure 8; page 7, first paragraph)*.

Ryan modifies the device of Rapaich such that a capacitance of the ball forms a part of the resonant circuit. In the circuit of Ryan, since the capacitance of the electrodes 80 and 81 affect the resonant frequency, the circuit is implemented in the device of Rapaich where the ball transducer which is coupled to directional sensors causes a signal to result from a change in capacitance is the equivalence of the capacitance of the electrodes 80 and 81 of Ryan.

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to have a detector device comprises an oscillator with a resonant circuit, wherein a capacitance of the ball forms a part of the resonant circuit, as taught by Ryan to the device of Rapaich so as to lower power consumption *(Ryan: page 7, first paragraph, lines 2-4).*

With respect to **Claims 2 and 3**, claims 2 and 3 differ from claims 10 and 11 respectively only in that claims 10 and 11 relate to an input device whereas claims 2 and 3 are means plus function claims. Thus, the means plus function claims of claims 2 and 3 are analyzed as previously discussed with respect to the input devices of claims 10 and 11.

With respect to **Claims 6 and 7**, claims 6 and 7 differ from claim 16 only in that claim 16 is an input device and encompasses all the limitations of claims 6 and 7, whereas claims 6 and 7 are means plus function claims. Thus, the means plus function claims of claims 6 and 7 are analyzed as previously discussed with respect to the input device of claim 16.

5. **Claims 18-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rapaich as applied to claim 9 above, and further in view of Kiljander et al. (EP 1 073 004 A2).

With respect to **Claim 18**, The device according to claim 9, Rapaich does not teach the device to further comprise a display for showing menus in which navigation may be performed by means of the input device.

Kiljander teaches a display for showing menus in which navigation may be performed by means of the input device *(See figure 1, element 42: input device, element 16: display; column 3, lines 17-18; column 4, lines 18-24).*

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to have a display for showing menus in which navigation may be performed by means of the input device, as taught by Kiljander, to the device of Rapaich so as to provide a multi function device and providing control in a user interface for an electronic device *(Kiljander: [0006]).*

With respect to **Claim 19**, the device according to claim 18, Rapaich does not teach the device is a mobile telephone.

Kiljander teaches the device is a mobile telephone *(See figure 1; column 2, lines 43-45; column 6, lines 37-39).*

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to have a device that is a mobile telephone, as taught by Kiljander, to the device of Rapaich so as to implement the input device in additional electronic devices *(Kiljander: [0001]).*

6. **Claims 4 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rapaich and Ryan as applied to claim 9 above, and further in view of Casebolt et al. (US 6,661,410 B2).

With respect to **Claim 12**, the device according to claim 11, Neither Rapaich nor Ryan teach the time is adjustable.

Casebolt teaches an activity sensor comprises a timer adapted to switch off the energization of the pointing device *(column 14, lines 25-28 and lines 31-35; pointing device ~ mouse)* after a time has elapsed without any sensed activation of the pointing device *(column 4, lines 49-51)* such that the time is adjustable *(column 14, lines 58-60; column 15, lines 1-2).*

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to have a timer such that the time is adjustable, as taught by Casebolt, to the device of Rapaich so as to differentially control the supply of power for signal generation taking into account the relative power consumption rates *(Casebolt: column 14, lines 31-35)* and take into account user preferences.

With respect to **Claim 4**, claim 4 differs from claim 12 only in that claim 12 is an input device whereas claim 4 is a means plus function claim. Thus, the means plus function claim of claim 4 is analyzed as previously discussed with respect to the input device of claim 12.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donna V. Lui whose telephone number is (571) 272-4920. The examiner can normally be reached on Monday through Friday 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571)272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Donna V Lui
Examiner
Art Unit 2629

AMR A. AWAD
SUPERVISORY PATENT EXAMINER